

MOUNTAIN LAKE ECHOES

MOUNTAIN LAKE BIOLOGICAL STATION

 UNIVERSITY of VIRGINIA

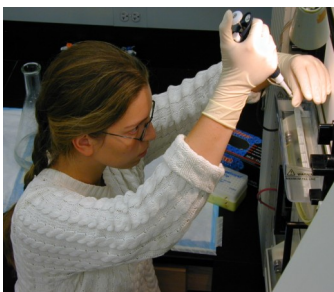
Winter 2012



Early Career Fellowships

MLBS is pleased to offer [fellowships for early career Ph.D.s](#) to do research at the Station for periods of 3-8 weeks. The purpose is to attract new researchers to the Station and give them an opportunity to collect preliminary data to support subsequent grant proposals. A similar program offered in the mid 90's recruited a number of researchers, some of whom continue to return to the station today. "Researchers form the core of the intellectual community at the Station, it is critical that we look to the future." says Director Butch Brodie. Review begins Feb. 20th.

If you are interested in applying, contact bbrodie@virginia.edu.



Partnership with the Arts

Around the evening campfire, MLBS researcher Vince Formica described his studies of insect social networks to a visiting artist; the interplay ranged from the artist suggesting how to visualize the landscape of social interactions to Vince explaining the mechanism of mushroom growth on dead wood. The exchange included practical advice about photography, new information about what underlies the observations of surface forms, and recognition that the visual representation of ideas is often as powerful as written word or data plots.

MLBS wants to foster this kind of interaction. To that

end, in 2011 MLBS offered a class in landscape drawing led by Prof. [Megan Marlatt](#). (See [article and slideshow](#)). In 2012 we will add a sculpture class guided by Prof. [Bill Bennett](#). The future might hold courses in environmental writing, film and the performing arts.

Research demonstrates that scientists engaged in artistic pursuits are more creative and better able to communicate their work to a broad audience. MLBS looks forward to having a dedicated art studio and artist-in-residency program.

Upcoming Dates

- REU APPLICATION DEADLINE FEBRUARY 20
- COURSE APPLICATIONS ACCEPTED UNTIL CLASS IS FILLED—FINANCIAL AID REQUESTS DUE MARCH 15
- EARLY CAREER FELLOWSHIP REVIEW BEGINS FEBRUARY 20

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Mountain Lake Echoes

From the Director

Butch Brodie

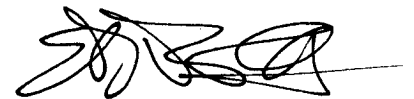
The Great Virginia Earthquake of August 2011 was felt all the way at the top of Salt Pond Mountain. The rumbles had their biggest impacts on the California natives in residence but seemed to have little lasting impact. The biggest question on everyone's mind was whether it would have a dramatic effect on the level of Mountain Lake. It was hard to tell, because the lake was so low to begin with, but several weeks after the quake the Lake was almost completely gone again. A little water has returned to the basin, but the winter has been a warm dry one, so don't plan on a lot of swimming there next summer.



One of the more exciting developments of the 2011 season was a visit by the College of Arts and Science Deans in June. This was the first on-site visit for the Deans in a number of years, and the first time some had seen the Station. The event was an important step forward in extending the visibility of MLBS through the University of Virginia community.

On that thread, 2011 brought the first Studio Art class to MLBS, led by Megan Marlatt. The program received grand reviews from all sides, and 2012 will bring two Art Classes (Drawing and Sculpture) to the mountain. Station residents have enjoyed the new perspectives on old familiar sights, and the combination of art and science at the Station seems a natural and healthy recipe for creative discovery.

The 2012 season will bring the initiation of a new Early Career Fellowship program designed to recruit new faculty researchers to the community. Fellowships will cover all station and residency costs so scientists interested in developing a new research program or testing a high-risk idea will have fewer barriers to participation. Eligibility is wide open, so if you or someone you know has considered visiting the Station for research, we welcome applications!



Suzanne Allison

Student Corner

I had no idea what to expect when I registered for a summer course at MLBS. While spending a summer month on a cool, beautiful mountain-top and getting a much-needed 4 course credit hours in a field biology course were reason enough to enroll, I didn't anticipate just how rewarding my time there would be.

Every single person I met, whether faculty, staff, or researcher, was welcoming, knowledgeable, and open to the questions of a curi-

ous undergraduate student. I was challenged, encouraged, and given the chance to explore areas of science new to me. It was especially helpful in gaining an understanding of what I might want to pursue in graduate studies.

I took a Plant-Animal Interactions with [Prof. Lorne Wolfe](#). Our class of four students spent time exploring habitats on the mountain, learning botany and entomology, as well as about re-

search design and how to analyze and present results. We conducted a group research project studying butterfly pollination of the flame azalea, and also undertook individual studies. I looked at the relationship between floral phenology and pollinator community diversity in common milkweed.

The opportunity to spend time with people who are passionate about their work and more than willing to share their exper-

tise, should not be undervalued. I'm eager to return to MLBS and would encourage anyone interested in field biology to take advantage of this special place.



REU Spotlight—Margaret Roberts

Interviewed by Melissa Wender



Margaret Roberts of Appalachian State University is a Biology/Anthropology major interested in the flora and archeology of the Appalachian Mountains. In 2011 she participated in the Research Experiences for Undergraduates program with Eric Nagy as her mentor.

What are you studying? I'm studying the morphological variation of *Vaccinium* hybridization; looking at

whether different blueberry species hybridize by looking at the different plant traits. There are multiple species of native blueberry at the station. Some hybrids can be sterile, some reproduce, it's fairly complicated; they can cross back with parents or other hybrids. Natural reproduction occurs by rhizome but also by seed.

What are you planning to do today? I am sampling along a

200m grid and at every point I sample a 7m circle: I sample blueberry species, then take diameter at breast height of trees and other plant species, I look at percent canopy cover, soil temp, soil pH and soil moisture. I then look at blueberry samples under a microscope and count different morphological traits that I made quantitative: Stem color by comparing them to paint samples; number of hairs on leaf edge; on midvein, top and bottom; number of serrations on leaf margins and whether they are glandular or non-glandular. The workshop in how to use the GPS from the [UVA Scholars Lab](http://www.uva.edu/scholarslab) was immensely helpful because it let me use designated coordinates that were not on a trail.

What are the implications of the research? My prediction

is that there is hybridization, but we don't know if it is just local – and I'm curious to see if there is a possible hybrid swarm rather than random distribution. I hope the research helps up to understand how species form. Some scientists think hybridization can lead to speciation.

Anything else about your experience at MLBS? The most valuable thing about being here is learning what real science is like. I have a much better understanding what a career in biology is like. I like going out into the field. I've made good connections with encouraging, interesting scientists. I encourage people to visit; field stations are a great resource even if you can just come up for a few days.

Positions Open



New fitness equipment at the station

Full-Time Station Manager - Full time. Permanent. This position will support the research, educational and outreach activities at the Station. For full announcement <http://mlbs.org/node/518>. To apply jobs.virginia.edu/applicants/Central?quickFind=66297

Temporary Summer Assistants to the Station Manager May - August 2012. Provide administrative, financial, and general operational support. See details at <http://www.mlbs.org/node/561>. Please apply on-line at: jobs.virginia.edu/applicants/Central?quickFind=66282.

The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

Mountain Lake Biological Station contact info

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SUPPORT MLBS

You can support Mountain Lake Biological Station by making a tax-deductible donation.

Your gift promotes learning, education, scholarships, and research and has the potential not only to impact students' lives but to change our world. Help support our students and researchers today by making a donation on-line at mlbs.org.

SUMMER 2012 COURSES



SESSION I, May 14—June 8

PLANT CONSERVATION AND DIVERSITY (BIOL 4510/7510, Sec 1—4 cr) Zack Murrell, Appalachian State University

FIELD BIOLOGY OF SEX (BIOL 3510, Sec 1—4 cr) Kristal Cain, Indiana University



SESSION II, June 11—July 6

BIOLOGY AND CONSERVATION OF FISHES (BIOL 4510/7510, Sec 2—4 cr) Dave Neely & Anna George, Tennessee Aquarium Conservation Institute

FIELD ETHNOBOTANY (BIOL 4510, /7510 Sec 3—4 cr) Lytton Musselman, Old Dominion University



SESSION III, July 9—Aug 3

SCULPTURE AND EARTH (ARTS 2580, 3cr) William Bennett, University of Virginia. **Note:** Class Runs July 9-20

DRAWING I and II—The Landscape, Small and Large (ARTS 1610/2620—3cr) Megan Marlatt, University of Virginia. **Note:** Class Runs July 23—Aug 3

FIELD METHODS in STREAM ECOLOGY (BIOL 4510/7510 Sec 4—3cr) Christine May & Scott Eaton, James Madison University. **Note:** Class Runs July 16-Aug 3